

In the Claims

Please amend the claims as indicated below. This version of all the pending claims will replace all prior versions.

1.-26. (canceled)

27. (currently amended) A method of manufacturing a dental restoration comprising:

fabricating a die for the dental restoration, wherein the die is oversized and wherein the die is partially sintered prior to application of the powder thereon;

applying powder selected from ceramic, glass ceramic powder and mixtures thereof onto the die in the shape of the dental restoration;

sintering the powder to form the dental restoration.

28. (canceled)

29. (original) The method of claim 27 wherein the die is oversized in an amount to account for proper shrinkage of the powder after sintering.

30. (original) The method of claim 27 wherein fabricating the die comprises machining the die from a block of material.

31. (original) The method of claim 30 wherein the machined die is machined from data taken from a patient's mouth.

32. (original) The method of claim 30 wherein the machined die is machined from data taken from an impression of a patient's mouth.

33. (original) The method of claim 27 wherein the die is removed from the shaped powder prior to sintering.

34. (currently amended) The method of claim ~~127~~ wherein the dental material is sintered in the range of about 1400 to about 1500°C for a time ranging from about one to about four hours.

35. (original) The method of claim 27 wherein the ceramic powder linearly shrinks isotropically about 8 to about 25% during sintering.

36. (original) The method of claim 27 wherein the powder comprises a material that may be sintered to a strength of greater than about 250 MPa.

37. (original) The method of claim 27 wherein the powder comprises aluminum oxide, partially stabilized zirconium oxide, mullite, or mixtures thereof.

38. (original) The method of claim 27 wherein the die is fabricated of a porous material.

39. (original) The method of claim 38 wherein the porous material comprises gypsum.

40. (original) The method of claim 27 wherein applying the powder comprises pressing, extrusion, slip casting, gel casting or injection molding.

41. (original) The method of claim 27 wherein one or more binders is mixed with the powder prior to application to the die.

42. (original) The method of claim 27 wherein the powder is of uniform particle size.

43. (original) The method of claim 42 wherein the particle size is in the range between about 1 and about 30 microns.

44. (original) The method of claim 27 wherein the dental restoration is an orthodontic appliance, bridge, space maintainer, tooth replacement appliance, splint, crown, partial crown, denture, post, tooth, jacket, inlay, onlay, facing, veneer, facet, implant, abutment, cylinder, or connector.

45. (original) The method of claim 27 wherein the powder is substantially homogeneous.

46. (original) The method of claim 40 wherein the dental restoration is pressed at 50,000 psi at about ambient temperature.

47. (canceled)

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48. (canceled)

49. (original) A dental restoration formed by the method of claim 27.

50.-57. (canceled)